

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An OLED structure, comprising: a substantially flexible substrate; and at least one barrier layer deposited on the flexible substrate, each of which includes the barrier layer including a glass layer which was impregnated with barium ions after the depositing; an organic material layer; and that has certain components added or removed, wherein the barrier layer substantially prevents contaminants from permeating a the layer of organic material or the OLED structure.
2. (Currently Amended) An OLED structure as recited in claim 1, wherein the contaminants are water vapor and oxygen.
3. (Currently Amended) An OLED structure as recited in claim 1, wherein a plurality of the barrier layers is are disposed beneath the OLED structure organic material.
4. (Currently Amended) An OLED structure as recited in claim 1, wherein the at least one barrier layer is disposed beneath the OLED structure organic material and at least one other barrier layer is disposed over the OLED structure organic material.
5. (Original) An OLED structure as recited in claim 1, wherein the barrier layer is a glass material.
6. (Currently Amended) An OLED structure as recited in claim 5, wherein the glass material is Mg_xAl_ySi_zO Mg_xAl_ySi_zO or Aluminoborosilicate glass.
7. (Original) An OLED structure as recited in claim 1, wherein the substrate is comprised of one or more of polycarbonate, polyolefin, polyether sulfone (PES), polyethylene terephthalate (PET), polyethylene naphthalate (PEN), polyimide.
8. (Original) An OLED structure as recited in claim 1, wherein the substrate is comprised of one or more of paper, metal foils, and fabric.
9. (Withdrawn) A method of forming a barrier layer comprising: providing a multi-component glass layer between a substrate and an active layer; and selectively removing at least one component of, or selectively adding at least one component to, the multi-component glass to change the composition of the multicomponent glass into the barrier layer.
10. (Withdrawn) A method as recited in claim 9, wherein the active layer is an

organic layer.

11. (Withdrawn) A method as recited in claim 10, wherein an OLED structure is comprised of the organic layer.
12. (Withdrawn) A method as recited in claim 9, wherein the active layer includes an electronic structure.
13. (Withdrawn) A method as recited in claim 9, wherein the active layer includes a photonic structure.
14. (Withdrawn) A method as recited in claim 9, further comprising providing at least one other substrate over the active layer.
15. (Withdrawn) A method as recited in claim 9, further comprising providing at least one other multicomponent glass layer between the substrate and the active layer.
16. (Withdrawn) A method as recited in claim 9, further comprising providing at least one other substrate over the active layer, and providing at least one other multi-component glass layer between the substrate and the active layer.
17. (Withdrawn) A method as recited in claim 14, wherein each of the substrates is comprised of one or more of polycarbonate, polyolefin, polyether sulfone (PES), polyethylene terephthalate (PET), polyethylene naphthalate (PEN), polyimide.
18. (Withdrawn) A method as recited in claim 9, wherein the selective adding of at least one component is by impregnating at least one component chosen to increase the flexibility of the glass, the resistance of the glass to impact breakage, or the resistance to cracking, or a combination thereof.
19. (Withdrawn) A method as recited in claim 18, wherein the impregnation is done by solution chemistry.
20. (Withdrawn) A method as recited in claim 18, wherein the impregnation is by plasma processing.
21. – 33. (Cancelled).
34. (New) The OLED structure as recited in claim 1, wherein a permeation of water vapor through the barrier layer is less than about 10^{-6} g/m²/day.
35. (New) The OLED Structure as recited in claim 1 wherein a permeation of oxygen through the barrier layer is less than about 10^{-5} cm³/m²/day.
36. (New) The OLED structure as recited in claim 5 wherein the glass material is selected from the group consisting of SiO_x, SiN_x or Al₂O₃.